



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/723,330

11/26/2003

John W. Henson

15826-106001/II-02-002

9487

26231

7590

03/22/2005

FISH & RICHARDSON P.C.
5000 BANK ONE CENTER
1717 MAIN STREET
DALLAS, TX 75201

EXAMINER

JENKINS, JERMAINE L

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/723,330</p>	<p>Applicant(s)</p> <p align="center">HENSON ET AL.</p>	
	<p>Examiner</p> <p align="center">Jermaine Jenkins</p>	<p>Art Unit</p> <p align="center">2855</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-40 and 60 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-23, 25, 27-29, 31, 41, 42, 45, 47-52, 55 and 57-59 is/are rejected.
- 7) ☒ Claim(s) 3, 6, 24, 26, 30, 43, 44, 46, 53, 54 and 56 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10142004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 5, 20-21, 41, 42, 45, 47-52, 55 & 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (6,530,281) in view of Schenk, Jr. (6,742,396).

In regards to claims 1, 4, 21, 41, 42, 45-49, 51, 52, 55, 57 & 58, Chou teaches a device for measuring pressure comprising a housing comprising an inlet (80, inlet being interpreted as a port), a transducer (36, transducer being interpreted as an electrical circuit) coupled to the inlet (80) in the housing to generate an electrical signal representative of pressure at the inlet (80) (Column 2, lines 57-65), and a visual indicator (37, indicator being interpreted as a display) coupled to the inlet (80) in the housing to indicate pressure at the inlet (80) (Column 3, lines 13-18; See Figure 3). Chou does not teach a data communication device coupled to the transducer in the housing to transmit a wireless signal corresponding to the electrical signal, whereby pressure information is provided both locally and remotely.

Schenk, Jr. teaches a pressure measuring device comprising a data communication device (110, data communication device being interpreted as a remote display) in the housing to transmit a wireless signal (being interpreted as radio frequency communication) corresponding to the electrical signal whereby pressure information is provided both locally and remotely

Art Unit: 2855

(Column 3, lines 2-31). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a data communication device as taught by Schenk, Jr. into the pressure measuring device of Chou for the purpose of providing relatively simple and inexpensive method for upgrading a convention dial indicator of substantially any type to include the capability of providing remote indication of a physical parameter (Column 3, lines 35-41; Schenk, Jr.).

With respect to claim 2, Chou teaches the housing comprises a stem extending to the inlet (80) (See Figure 3); the transducer (36) comprises a Bourdon tube (31) coupled to the inlet (80) to accurately displace in response to pressure at the inlet (See Figure 3), and the visual indicator (37) comprises: a shaft (34, shaft being interpreted as a pinion) coupled to the Bourdon tube (31) to rotate in response to displacement of the Bourdon tube (31) (Column 3, lines 13-18; See Figure 3). However, Chou does not teach having a pointer attached to the rotatable shaft to indicate pressure values.

Schenk, Jr. teaches a pointer (22) attached to the rotatable shaft to indicate pressure values (Column 3, lines 42-48; See Figure 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a rotatable pointer as taught by Schenk, Jr. in the apparatus of Chou of the purpose of indicating the pressure value to the user and being well-known in the art.

With respect to claims 5, 20, 50 & 59, Chou teaches the visual indicator (37) comprising a digital display (Column 2, lines 60-61; See Figure 3).

Art Unit: 2855

3. Claims 7-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (6,530,281) and Schenk, Jr. (6,742,396) as applied to claims 1, 2 & 5 above, and further in view of Gray (4,745,811).

With respect to claims 7-19, Chou and Schenk teach the claimed invention except for a processor coupled between the transducer and the data communication device.

Gray teaches a pressure sensing apparatus having a processor (90, processor being interpreted as a processing circuit) coupled between the transducer (68, transducer being interpreted as a detector) and the data communication device (Column 4, lines 39-46). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a processor as taught by Gray in the combination of the systems of Chou and Schenk, Jr. for the purpose of providing multiple outputs resulting in a pressure responsive device having general application to various control and monitoring systems (Column 4, lines 47-50; Gray).

4. Claims 22, 23, 25, 27-29 & 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (6,530,281) and Schenk, Jr. (6,742,396) further in view of Gray (4,745,811).

Win regards to claims 22, 23, 25, 27-29 & 31, Chou teaches a device for measuring pressure comprising a housing comprising an inlet (80, inlet being interpreted as a port), a transducer (36, transducer being interpreted as an electrical circuit) coupled to the inlet (80) in the housing to generate an electrical signal representative of pressure at the inlet (80) (Column 2, lines 57-65), and a visual indicator (37, indicator being interpreted as a display) coupled to the inlet (80) in the housing to indicate pressure at the inlet (80) (Column 3, lines 13-18; See Figure

Art Unit: 2855

3). Chou does not teach a data communication device coupled to the transducer in the housing to transmit a wireless signal corresponding to the electrical signal, whereby pressure information is provided both locally and remotely.

Schenk, Jr. teaches a pressure measuring device comprising a data communication device (110, data communication device being interpreted as a remote display) in the housing to transmit a wireless signal (being interpreted as radio frequency communication) corresponding to the electrical signal whereby pressure information is provided both locally and remotely (Column 3, lines 2-31). Chou and Schenk, Jr. do not teach a processor coupled to the transducer in the housing, the processor operable to receive the electrical signal and to generate a signal including pressure information corresponding to the signal.

Gray teaches a pressure sensing apparatus having a processor (90, processor being interpreted as a processing circuit) coupled between the transducer (68, transducer being interpreted as a detector) and the data communication device (Column 4, lines 39-46). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a processor as taught by Gray in the combination of the systems of Chou and Schenk, Jr. for the purpose of providing multiple outputs resulting in a pressure responsive device having general application to various control and monitoring systems (Column 4, lines 47-50; Gray).

Allowable Subject Matter

5. Claims 32-40 & 60 are allowed.

Art Unit: 2855

6. The following is a statement of reasons for the indication of allowable subject matter:

The cited prior art does not disclose or suggest a pressure measuring device having an inductive target coupled to the Bourdon tube to move in response to displacement of the Bourdon tube, and an eddy current sensor positioned to sense movement of the inductive target and in response to movement of the inductive target to generate an electrical signal.

7. Claims 3, 6, 24, 26, 30, 43, 44, 46, 53, 54 & 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent 6,164,138 (Blake et al) – Self Aligning Dial for Instrument Gauge
- U.S. Patent 6,637,272 (Bariere) – Manometer with Direct Passage
- U.S. Patent 6,295,876 (Busch) – Linearity Adjustment Feature for Suspended Movement-Type Pressure Gauges
- U.S. Patent 6,216,541 (Carpenter) – Pressure Gauge Overpressure Safety Release
- U.S. Patent 4,184,377 (Hubbard) – Hydraulic Pressure Transducer with Electrical Output


Art Unit: 2855

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermaine Jenkins whose telephone number is 571-272-2179. The examiner can normally be reached on Monday-Friday 8am-430pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jermaine Jenkins
A.U. 2855


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800